REMARKS

This is in response to the Office Action dated December 17, 2003. Claims 10-11 have been canceled, without prejudice in view of the Restriction Requirement. Claims 1-5 and 9 have also been canceled. New claims 12-14 have been added. Thus, claims 6-8 and 12-14 are now pending.

All previous arguments/comments are hereby withdrawn, and new arguments in view of the amended claims are set forth below.

Subject matter from claim 9 has been added to claim 6. Thus, claim 9 has been canceled.

The units (Ω/□) for sheet resistance in the instant specification are objected to in paragraph 2 of the Office Action. In particular, the Office Action states that "□" is unrecognized. This objection is respectfully traversed. Sheet resistance is almost always measured in units of ohms/square. Those of ordinary skill in the art typically use "Ω/□" as a representation of ohms/square. The instant specification does this. Certainly, the instant specification at page 2, line 26, clearly states that □ means square as known in the art. Thus, it is respectfully requested that this formality objection to the specification be withdrawn.

The specification has been amended to correct a minor typographical error. The specification as originally filed, by clearly explaining that the dopant concentration in the resulting film is higher closer to the substrate surface than at an outer portion of the film (e.g., pg. 22, lines 11-14), evidences that the dispersion head for the gaseous compound

of a dopant element(s) is closer to the silicon substrate than is the dispersion head(s) for the gaseous titanium compound.

For purposes of example and without limitation, certain example embodiments of this invention relate to an apparatus for forming a film comprising titanium oxide. In certain example embodiments, at least one gaseous compound of a dopant element is fed into a first dispersion head and titanium inclusive gas is fed into a second dispersion head. As shown in Figs. 5-6 for example, the dispersion head for the gaseous compound of a dopant element(s) is closer to the silicon substrate than is the dispersion head for the gaseous titanium compound. Example advantages are discussed from page 25, line 20 to page 26, line 3.

Claim 6 stands rejected under 35 U.S.C. Section 102(b) as being anticipated by Oda. This Section 102(b) rejection is respectfully traversed for at least the following reasons.

Claim 6 requires "means for introducing the gaseous compound of a dopant element into a first dispersion head, means for introducing the gaseous titanium compound into a second dispersion head, means for positioning a bottom discharge end of the first dispersion head closer to a surface of the silicon substrate than is a bottom discharge end of the second dispersion head, means for conveying the silicon substrate heated to a predetermined temperature in a direction from a position immediately below a discharge port of the first dispersion head to a position immediately below a discharge port of the second dispersion head. As shown in Figs. 5-6 for example, the dispersion

head for the gaseous compound of a dopant element(s) is closer to the silicon substrate than is the dispersion head for the gaseous titanium compound. Example advantages are discussed from page 25, line 20 to page 26, line 3. Accordingly, it is possible to form a titanium oxide film where a concentration of a dopant element(s) is high in the vicinity of the substrate surface and lower closer to the film surface (i.e., a titanium oxide film having different dopant concentrations in a thickness direction of the film) (e.g., pg. 22, lines (e.g., pg. 22, lines 11-14). Moreover, the conveying means and multiple dispersion heads in a single apparatus allow easy formation of the titanium oxide film in certain example embodiments of this invention.

Oda fails to disclose of suggest the aforesaid underlined aspects of claim 6. Oda, in Fig. 10, discloses an apparatus including nozzles which are located different distances from the underlying substrate (e.g., col. 8, lines 9-28). However, Oda clearly fails to disclose or suggest that a dispersion head for a gaseous compound of a dopant element(s) is closer to the silicon substrate than is the dispersion head for the gaseous titanium compound as required by claim 6. Oda is entirely unrelated to the invention of claim 6 in this regard.

Moreover, the aforesaid underlined aspects of claim 6 are in *means-plus-function* form in accordance with 35 U.S.C. Section 112, paragraph 6. The recited functions cannot be ignored. The statute itself requires the Examiner to consider the recited functions as positively recited claim limitations. Again, Oda clearly fails to disclose or suggest that, in making a titanium oxide inclusive film, a dispersion head for a gaseous

compound of a dopant element(s) is closer to the silicon substrate than is the dispersion head for the gaseous titanium compound as required by claim 6.

Claims 13-14 require means for formed in a non-uniform manner so that a concentration of the dopant element in the film varies through a thickness of the film so that the concentration of the dopant element in the titanium oxide film is higher adjacent a surface of the substrate than at a location spaced further away from the surface of the substrate. For example, see the instant specification at page 22, lines 11-14. The cited art fails to disclose or suggest this aspect of claims 13-14.

For at least the foregoing reasons, it is respectfully requested that all rejections be withdrawn. All claims are in condition for allowance. If any minor matter remains to be resolved, the Examiner is invited to telephone the undersigned with regard to the same.

Respectfully submitted,

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